

Amendment to the Specification:

Please amend the specification as follows:

Please replace the paragraph [0063] on page 13 (published as [0064]), with the following amended paragraph:

The term “variant” refers to polynucleotides or polypeptides of the invention modified at one or more base pairs, codons, introns, exons, or amino acid residues (respectively) yet still retain the biological activity of a transaminase or aminotransferase of the invention. Variants can be produced by any number of means included methods such as, for example, error-prone PCR, shuffling, oligonucleotide-directed mutagenesis, assembly PCR, sexual PCR mutagenesis, in vivo mutagenesis, cassette mutagenesis, recursive ensemble mutagenesis, exponential ensemble mutagenesis, site-specific mutagenesis, gene reassembly, ~~gene-site-saturated mutagenesis~~ Gene Site Saturation MutagenesisTM (GSSMTM) and any combination thereof.

Please replace the paragraph [0139] (published as [0140]) on page 31, with the following amended paragraph:

The invention also provides for the use of proprietary codon primers (containing a degenerate N,N,N sequence) to introduce point mutations into a polynucleotide, so as to generate a set of progeny polypeptides in which a full range of single amino acid substitutions is represented at each amino acid position (~~gene-site-saturated mutagenesis~~ Gene Site Saturation MutagenesisTM (GSSMTM)). The oligos used are comprised contiguously of a first homologous sequence, a degenerate N,N,N sequence, and preferably but not necessarily a second homologous sequence. The downstream progeny translational products from the use of such oligos include all possible amino acid changes at each amino acid site along the polypeptide, because the degeneracy of the N,N,N sequence includes codons for all 20 amino acids.

Please replace the paragraph [0289] and its header on page 74 (published as two separate paragraphs: ¶ 309 (the header) and ¶ 310 (the sequence)), with the following amended

paragraph and header:

Aquifex ~~Histidine-phosphate~~ Histidinol-phosphate Aminotransferase

his 501

5' CCGACAATTGATTAAAGAGGAGAAATTA ACTATGATACCCCAGAGGATTAAG (SEQ ID NO: 13)

his 301 3' CGGAAGATCTTTAAAGAGAGCTTGAAAGGGA (SEQ ID NO:14)

vector: pQET1